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## (12) United States Patent

O'Shea et al.

# (54) JANUS FAMILY KINASES AND IDENTIFICATION OF IMMUNE MODULATORS

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See application file for complete search history.

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### (57) ABSTRACT

An isolated polynucleotide encodes JAK-3 protein. JAK-3 protein is a protein tyrosine kinase having a molecular weight of approximately 125 kDa which has tandem non-identical catalytic domains, lacks SH2 or SH3 domains, and is expressed in NK cells and stimulated or transformed T cells, but not in resting T cells. The protein itself and antibodies to this protein are also presented. Further, methods of identifying therapeutic agents for modulating the immune system make use of the foregoing.

#### 2 Claims, No Drawings